Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/501,291	**Applicant(s)** YONEHARA ET AL.	
	Examiner KADE ARIANI	**Art Unit** 1651	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 April 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: The claims remain rejected for the reacsons of record.

/Leon B Lankford/
Primary Examiner, Art Unit 1651

Applicant argues that nothing in the references teaches or suggests adding a degradation FAOD to the sample as a pretreatment so that a glycated amino acid as a contaminant present in the sample is degraded and removed from the sample by the degradation FAOD and glycated protein as the analyte remains in the sample, as required by independent claim 1, and nothing in the references teaches or suggests using a pretreatment reagent containing a first FAOD that is present in an amount suitable for the degradation of a glycated amino acid as a contaminant present in the sample as required by claim 9.

However, According to specification (page 2 lines 30-33), a FAOD used for degrading the glycated amino acid is referred to as a "degradation FAOD", and a FAOD used to measure the glycated protein is referred to as a "measurement FAOD", and according to specification (page 4 lines 29-35), the measurement FAOD acts on both a glycated α-amino- group and a glycated side-chain amino group. Komori et al. teach causing a fructosyl amino acid oxidase (FAOD) to act on a glycated amino acid, the FAOD catalyzes a reaction represented by formula (1), and in formula (1) the α-amino- group is glycated, and in the formula (1) when an amino acid side chain group is glycated (p.4 003, 0034, and 0036). Therefore, the claimed "measurement FAOD" is met by Komori et al.

Komori et al. also teach FAOD treatment can be done separately or simultaneously, protease treatment + FAOD treatment (step 3), FAOD treatment + redox treatment (step 4), and the order of adding the FAOD is not limited (p.7 0061 step 3 and 0062). Therefore, Komori et al. teach pretreatment with a measurement FAOD, and adding a measurement FAOD during the redox reaction. Komori et al. further teach conditions of the FAOD treatment are determined as appropriate depending on the type of FAOD used, the type and the concentration of the glycated proteins (p.6 0054).

Moreover, according to the specification (p.4 lines 26-27), the "degradation FAOD" is specific for a glycated α-amino group. Yoshida et al. teach FAODs (derived from Aspergillus terreus and from Fusarium oxysporum), are active towards the model compounds of the glycated proteins in blood. Yoshida et al. teach the most commonly glycated site of albumin is the ε-amino group of the lysine residue (the amino group on the side chain of the lysine residues), and that of glycated hemoglobin (HbA1c) is the N-terminal valine (glycated α-amino group), therefore, Z-Lys(Fru) and Fru-Val are taken to be model compounds (p.499 2nd column 1st paragraph lines 1-4 & 7-12, and 1st column end paragraph). Yoshida et al. teach FAODs with different substrate specificities, applicable in the enzymatic measurement of the glycated albumin, and for enzymatic measurement of glycated hemoglobin (Introduction 2nd column 1st paragraph). Yoshida et al. further teach Fusarium (FAOD) enzyme showed high activity toward ε-glycated compounds and the Aspergillus enzyme acted on ε-glycated and α-glycated molecules to same degree, and the FAOD from Penicillium janthinellum showed higher activity toward Fru-Val, which is expected to be applicable to the enzymatic determination of glycated hemoglobin (Abstract, p.504 2nd column 1st paragraph lines 3-7, and 3rd paragraph lines 7-10). The FAOD(s) taught by Yoshida et al. are equivalent of FAOD(s) disclosed in the specification and perform the same function specified in the claims. Therefore, the claimed "degradation FAOD" is met by Yoshida et al.

Yoshida et al. further teach the enzymatic measurement of glycated proteins described in this report is not specific for glycated albumin among glycated proteins in blood, because lysine residues in proteins other than albumin may also be glycated, however, the amount of "total glycated serum protein" is known to be a more sensitive indicator of the great fluctuations in the blood glucose level generally associated with insulin-dependent diabetes (p.504 2nd column 3rd paragraph lines 1-7).

Therefore, a person of ordinary skill in the art at the time the invention was made could have been motivated to combine the prior art teachings and to modify the method as taught by Komori et al. by using a degradation FAOD in the pretreatment step and in the pretreatment reagent according to the teachings of Yoshida et al. to provide a method of measuring an amount of a glycated protein with predictable results of degrading/removing a glycated amino acid (contaminant) present in the sample by the FAOD enzyme. The motivation as taught by Yoshida et al. would be the interference caused by the glycation of amino groups in the side chain of the amino acid residue(s) of blood proteins (other than the glycated protein to be measured). Accordingly, once a method of measuring an amount of a glycated protein in an analyte was established, providing a measuring kit to determine the amount of the glycated protein would become obvious. The motivation would be to provide a measuring kit for the purpose of the diagnosis of diabetes. Applicant is directed to pages 12-13 of KSR v Teleflex (500 US ___ 2007) " … the Court has held that a "patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men." Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., 340 U. S. 147, 152 (1950). This is a principal reason for declining to allow patents for what is obvious. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."